

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445.42525)

Permittee Name: Town of Jackpot
Elko County Public Works
155 South 9th Street
Elko, NV 89801
Elko County

Permit Number: NEV80018

Location:

The Jackpot WWTF is located east Jackpot, Elko County, immediately adjacent to and east of the Jackpot airport runway.

Latitude: 41° 59' N
Longitude: 114° 40' W
Township 47N, Range 64E, Section 12 and
Township 47N, Range 65 E, Section 7

General:

The Elko County Public Works Department operates a wastewater treatment facility (WWTF) that serves residents and resort visitors of the town of Jackpot, located immediately south of the Idaho/Nevada state line. The WWTF consists of two primary aerated lagoons and one secondary aerated lagoon, followed by percolation beds. The primary and secondary lagoons have no synthetic liners. The proposed treatment scheme calls for cyclic aeration, allowing for both aerobic and anoxic treatment. The percolation beds are operated on the same principle, with effluent discharges cycled among various cells within the beds. The aerobic/anoxic treatment is intended to reduce nitrogen concentration in the effluent. Further, filtration of the effluent through the soil matrix assists in additional reductions in Five Day Inhibited Biological Oxygen Demand (CBOD₅) and Total Suspended Solids (TSS). The facility is permitted for 0.63 MGD. There are a number of town and domestic water supply wells within a one-mile radius of the facility. The closest well is approximately 0.53 mile (2775 feet) from the facility.

Issues of high nitrate and Total Dissolved Solids (TDS) in the North Monitoring Well (MW1) became evident in 1997, and reached a maximum level of 29.0 and 1210 mg/l, respectively, in late 2002. Further investigation suggests that the soil in the vicinity of the monitoring well (volcanic ash) contains naturally occurring leachable salts, and the high nitrate and TDS are results of the percolation of fluids through the localized soil matrix. It was anticipated that the increasing levels of nitrate and TDS would level off and eventually drop as the available salts in the soil are depleted. This effect was observed, with Nitrate and TDS levels dropping to 16.0 and 960 mg/l, respectively.

Receiving Water Characteristics:

Groundwater in the area of the WWTF varies from 49 to 81 feet below surface. Background water quality is believed to be that represented by samples taken from monitor well MW2 (South). Analyses indicate the following average concentration for MW2 1996 through 2001: Nitrate, 0.66 mg/l; Chloride, 12.5 mg/l; and TDS, 202.5 mg/l.

Effluent characteristics:

The discharge from the wastewater treatment plant is secondary treated effluent. For the period from 1996 through Second Quarter 2004, the average effluent values are: 76.45 mg/l TSS, 31.55 mg/l (CBOD₅), 0.30 MGD (330,000 gallons/day) Average Flow, and 0.42 MGD (420,000 gallons/day) Maximum Flow. The effluent is pumped to the percolation beds, which distribute the effluent into the groundwater of the State. Since 1996, the treated effluent has exceeded the permit limits for CBOD₅ (45 mg/l) and TSS (90 mg/l) in 21.5% and 29.1% of samples, respectively. Recent changes to the operating procedures have been made to meet permit limits. The effect of these changes are not yet evident.

The facility has a design capacity of 0.63 MGD (630,000 gallons/day). The facility is currently permitted for the following flow limitations:

Flow: 0.63 MGD 30-Day Average flow
0.95 MGD Maximum flow

Procedures for Public Comment:

The Notice of the Division's intent to renew a permit authorizing the facility to discharge secondary-treated effluent into groundwaters of the State, subject to the conditions contained within the permit is being sent to the **Elko Daily Free Press** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. All written comments are to be hand-delivered, postmarked (via mail) or transmitted to the Division via fax or e-mail **by 5:00 P.M. on March 4, 2005.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:

The Division has made the tentative determination to renew the permit for a five (5) year period.

Proposed Effluent Limitations, Schedule of Compliance and Special Conditions

Discharges from the WWTF to groundwater of the State will be limited as follows:

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30-Day Average	Daily Maximum	Sample Locations	Measurement Frequency	Sample Type
Flow (MGD)	0.63	0.95	Influent	Weekly	Meter
CBOD ₅ (mg/l)	Monitor and Report		Influent	Monthly	Composite
TSS (mg/l)	Monitor and Report		Influent	Monthly	Discrete
CBOD ₅ (mg/l)	30	45	Lysimeters * 5-1, 5-2, 5-3, 6-1, 6-2, 6-3	Monthly	Composite
TSS (mg/l)	Monitor and Report	90	Lysimeters * 5-1, 5-2, 5-3, 6-1, 6-2, 6-3	Monthly	Discrete

* Lysimeters located in the percolation bed cells 5-1 through 6-3 shall be sampled on a monthly basis. If no effluent is present in the lysimeter, this shall be noted and reported on the DMR. Reporting sheet.

The monitoring wells, South MW (upgradient of the percolation beds), North East MW, MW-7, MW-8, and MW-9 (down gradient of percolation beds), will be monitored per the permit as follows:

PARAMETER	GROUNDWATER LIMITATIONS	MONITORING REQUIREMENTS	
		Frequency	Sample Type
Depth to Groundwater (ft)	Monitor and Report	Quarterly	Discrete
Groundwater Elevation (ft AMSL)	Monitor and Report	Quarterly	Calculate
Nitrate as N (mg/l)	Monitor and Report	Quarterly	Discrete
Total Nitrogen as N (mg/l)	10.0	Quarterly	Discrete
Chlorides (mg/l)	Monitor and Report	Quarterly	Discrete
TDS (mg/l)	Monitor and Report	Quarterly	Discrete

In addition, monitor wells West MW and North MW will be monitored per the above table on an annual basis. These analyses will be reported in the Fourth Quarter Monitoring Report.

Schedule of Compliance

The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additional or modifications which the Administrator may make in approving the schedule of compliance.

1. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
2. Within one hundred-twenty (120) days of the permit issuance date, the Permittee shall submit results of a sludge depth survey, and a schedule and plan for sludge removal, if necessary.
3. Within ninety (90) days of the permit issuance date, the Permittee shall submit a revised Operations & Maintenance (O&M) Manual for the wastewater treatment and disposal facility, which will include the following:
 - a. an updated seasonal maintenance plan for the treatment pond and the percolation basin; and
 - b. a written procedure for effluent sampling and handling.

Rationale for Permit Requirements:

Monitoring is required to ensure that groundwaters of the State of Nevada are not degraded.

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Monitoring is also required to assess the level of treatment being provided, and to determine compliance with discharge volume limitations.

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